

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1 – 16 (Cancelled)

17. (Currently amended) A portable handheld electrostatic spraying device comprising:

- a housing having a first end and a second end, the first end comprising a handle for a user to grasp during spraying operations;
- a high voltage generator having a high voltage output;
- at least one dispensing nozzle configured to release electrostatically sprayable material during spraying operations, the at least one spraying nozzle positioned near the second end of the housing;
- at least one reservoir configured to store materials to be sprayed;
- a tube connecting the at least one dispensing nozzle and the at least one reservoir, the tube configured to convey the materials to be sprayed from the at least one reservoir to the at least one dispensing nozzle;

means coupling the high voltage output of the high voltage generator to the materials so that the voltage is conducted through the materials to the materials present at the at least one dispensing nozzle;

at least one ring surrounding the at least one dispensing nozzle, the at least one ring coupled to the high voltage generator[[,]] so that the at least one ring ~~configured to develop~~ a high voltage of the same polarity as that applied to the materials being sprayed and [[to]] generates an electric field in the vicinity of the at least one dispensing nozzle during spraying operations;

wherein the development of a high voltage by the at least one ring of the same polarity as that applied to the materials being sprayed and the generation of an electric field in the vicinity of the at least one dispensing nozzle by the at least one ring during spraying operations causes the electrostatic spraying device to impart an electrostatic charge to the materials issuing from the at least one nozzle, to focus the material being sprayed, and to generate an iontophoresis effect to enhance material transport through skin when a forward extremity of the ring is brought within a distance of 2 cm of the skin of an earthed subject to be sprayed.

18. (Currently amended) The portable handheld electrostatic spraying device of claim 17 wherein ~~the at least one dispensing nozzle is mounted in fixed relation to the housing enclosing the at least one reservoir and~~ the at least one ring is in the form of an

annular cable mounted on the housing enclosing the at least one reservoir in substantially concentric relation with the at least one dispensing nozzle.

19. (Previously presented) The portable handheld electrostatic spraying device of claim 17 further comprising means for supplying the materials to the at least one dispensing nozzle passively.

20. (Withdrawn) The electrostatic spraying device of claim 17 further comprising means for supplying the material to the at least one dispensing nozzle by a user-induced operation.

21. (Cancelled)

22. (Previously presented) The portable handheld electrostatic spraying device of claim 18 wherein the at least one ring comprises, at least in part, an electrically semi-insulating material which is coupled to the source of high voltage, the electrically semi-insulating material having sufficient conductivity to permit a potential to be established at a location in front of the at least one nozzle which is of the same polarity as that applied to the material issuing from the at least one nozzle during spraying operations.

23. (Currently amended) A portable handheld electrostatic spraying device comprising:

a housing having a handle at a first end and an opening at a second end, the opening at the second end configured to accept a replaceable cartridge, the housing enclosing:

a high voltage generator having a high voltage output; and

a means coupling the high voltage output of the high voltage generator to the replaceable cartridge; and wherein the replaceable cartridge comprises:

at least one dispensing nozzle configured to release electrostatically sprayable material during spraying operations;

at least one reservoir configured to store materials to be sprayed;

a tube connecting the at least one dispensing nozzle and the at least one reservoir, the tube configured to convey the materials to be sprayed from the at least one reservoir to the at least one dispensing nozzle;

at least one ring surrounding the at least one dispensing nozzle, the at least one ring coupled to the high voltage generator[[,]] so that the at least one ring ~~configured to develop~~ a high voltage of the same polarity as that applied to the materials being sprayed and [[to]] ~~generates~~ an electric field in the vicinity of the at least one dispensing nozzle during spraying operations;

wherein the development of a high voltage by the at least one ring of the same polarity as that applied to the materials being sprayed and the generation of an electric field in the vicinity of the at least one dispensing nozzle by

the at least one ring during spraying operations causes the electrostatic spraying device to impart an electrostatic charge to the materials issuing from the at least one nozzle, to focus the material being sprayed, and to generate an iontophoresis effect to enhance material transport through skin when a forward extremity of the ring is brought within a distance of 2 cm of skin of an earthed target to be sprayed.